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THE ROLE OF VISUAL REPRESENTATION IN THE CONSTRUCTION OF MEANING

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Graduation thesis

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Abstract

The main focus of this thesis is to analyze verb-particle constructions in the English language and their relationship with strategic construal. This is achieved through the analysis of visual depictions of such constructions by Croatian and Omani high-proficiency speakers of English. The thesis first provides a theoretical background covering the most important topics related to this subject: verb-particle constructions, strategic construal, conceptual blending, and decoding images. The research was carried out by analyzing the participants' pictorial output, dividing the drawings into categories, and studying emerging patterns. Furthermore, focus was placed on speakers' strategies for visually depicting verb-particle constructions and individual images that merited further analysis.

Keywords: *particle verb constructions, strategic construal, cognitive linguistics*

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1. Introduction

This thesis focuses on the visual representation of particle-verb (PV) constructions of English speakers who acquired English as a foreign language (EFL). The study is based on data collected through research conducted by Al-Bulushi and Geld on 22 Croatian and 24 Omani learners. The learners were tasked with providing visual representations of a set of 24 PV constructions. These representations will be referred to as drawings, images, or pictures. The term verb-particle constructions is used to denote phrasal verbs that are composed of a verb and a particle; in the example of the phrasal verb *take down*, *take* is the verb and *down* is the particle. The thesis is rooted in the idea that PV constructions have a literal meaning and at least one metaphorical meaning, which can be visualized by EFL speakers. The study will analyze the relationships between these two types of meaning based on the drawings provided by EFL speakers. These pictures represent a different form of output when compared to the more common language-based research. Additionally, because all participants have English as a foreign language, their cognitive strategies are influenced by their first language and conscious cognitive processes (Geld, 2006, p. 4). Research questions this thesis will try to answer are:

- Which image categories are predominantly used by highly-proficient non-native speakers of English when visually representing PV constructions?
- What are the differences between Croatian and Omani speakers when it comes to the visual representation of PV constructions?

The conclusions of this thesis are related to the use of visual aids in the classroom, focusing mostly on English textbook illustrations. The thesis will try to answer what kind of images are most beneficial and how current textbook practices can be improved.

2. Theoretical background

This section of the thesis will provide an overview of three subjects that are essential to understanding further parts of the research, which will often reference these subjects. Particle verbs lie at the center of the research, offering fertile ground for analysis due to having layers of meaning and high complexity, resulting in linguistic constructions that can be construed in different ways. Strategic construal is a cognitive process through which speakers create meaning of various linguistic structures and is the core mechanic of the construction of the meaning of PV constructions. Decoding images refers to the process of analyzing images as a sort of language, including separate parts of those images, relationships between those parts, and general conventions which come into play when images are used to transfer meaning.

2.1. Phrasal and particle verbs

The term particle verb refers to a construction that consists of a verb and a particle that is most commonly a preposition. A similar, but not synonymous term is *phrasal verb*, but the distinction between them is not always clear.

According to Marianne Celce-Murcia (2014), most phrasal verbs consist of two or three parts: verb, particle, and sometimes an additional preposition. Celce-Murcia makes a distinction between literal and figurative phrasal verbs. When it comes to literal phrasal verbs, their meaning is obvious and can easily be inferred from the meaning of the particle-verb combination. The meaning of figurative phrasal verbs cannot be figured out by combining the individual meanings of their verb and particle. Such phrasal verbs also often have multiple meanings, depending on the particularities of use (for example if the verb is used as transitive or intransitive) or context (Celce-Murcia, 2014, p. 260).

René Dirven (2001) defines phrasal verbs as ‘combinations of verbs and prepositions, adverbs, or particles with a certain degree of idiomaticity, which means that the whole of the phrasal verb has a meaning which is more than the sum of its parts.’ (2001, p. 5) For instance, the phrasal verb *take down* can mean to write something down (metaphorical meaning) or to remove something from an elevated position (literal meaning). Dirven also states that particle verbs are a subcategory of phrasal verbs and that the distinctive property of particle verbs is that they have a prototypical, literal meaning as well as a figurative, idiomatic meaning. The figurative meaning can be so far removed from the literal one that Dirven calls it *petrified*, which is exemplified by the phrasal verb *lay down* in *He laid the law down*. (2001, p. 16).

For the purpose of this thesis, any construction that is made up of a verb and a particle will be referred to as a particle verb, and that term will be used to describe all such structures encountered over the course of this study. Any qualities of phrasal verbs also apply to particle verbs, as they are placed in a hierarchical relationship; all particle verbs are phrasal verbs, but not all phrasal verbs are particle verbs.

It should also be noted that the thesis places a strong emphasis on idiomatic particle verbs and the relationship between the literal and figurative meanings of such verbs. In the research section of the thesis, particle verbs will be referenced many times, so it is important to understand their basic components and their use in the English language.

To summarize, particle verbs are a subcategory of phrasal verbs that consist of a verb and a particle (most often a preposition). Particle verbs have a literal meaning (the combination of the meanings of their parts) and at least one metaphoric/figurative meaning, whose cognitive motivation and meaning are rarely discernible at first glance and usually have to be learned. As stated in the introduction, the preferred term for particle verbs will be verb-particle constructions, abbreviated to PV constructions.

2.2. Strategic construal

Construal¹ is described by Radden and Dirven (2007) as cognitive operations through which a speaker chooses one linguistic alternative over another, forming their thoughts in a specific way (pp. 21-22). For example, a bottle can be seen and described as half-full or half-empty, even when referring to the same bottle at the same point in time. The choice of expression through which the speaker conceptualizes the bottle allows the speaker to form different opinions and perspectives through language. Consequently, the choice of expression used to describe something gives others users of the same language information about the speaker's opinions and perspectives, provided they are able to notice and decipher linguistic clues in the speaker's language. Using the previous example, describing the bottle as half-empty will give listeners information about the amount of liquid left in the bottle, but also subtly inform them that the speaker leans toward pessimism. The speaker had two equally viable options, and they chose the one that has pessimistic connotations.

Which aspects of a scene are expressed through language when describing it also fall under construal. To describe these aspects, Langacker (2008) proposes four dimensions of

¹ The term was coined by Ronald W. Langacker (1987).

construal: specificity, focusing, prominence, and perspective (p. 55). Specificity (Langacker also uses terms granularity and resolution) refers to the level of precision and detail used to describe a scene; to describe a person as one's aunt is more specific than describing them as one's relative (Langacker, 2008, p. 55). Focusing includes the selection of conceptual content for linguistic representation, as well as the arrangement of that content into foreground and background. Prominence is used to determine which things are in the focus of attention. More prominent things stand out, meaning they are usually the first to be noticed and are retained more easily. Lastly, perspective is described as the combination of viewing arrangement (relationship between the viewers and the viewed situation) and dynamicity (how conceptualization unfolds through processing time) (Langacker, 2008, pp. 57-73). This thesis will not go into greater depth when it comes to dimensions of construal, but it is important to keep them in mind for future reference.

Geld defines strategic construal as universal cognitive potential realized through cognitive abilities an individual develops through their lifetime and that are in constant interaction with their first language (L1). Every instance of cognitive processing activated in the second language (L2) uses strategic conceptualizations that is based on fundamental cognitive abilities as well as knowledge of the language and knowledge of the world (Geld 2006, p. 4). This definition can be paraphrased as the ability of L2 speakers to strategically learn, think about, and process their non-native language. It encompasses all conscious cognitive mechanisms and strategies speakers use to learn their L2, many of which are rooted in their experiences acquiring their L1 and non-linguistic knowledge of the world.

Going forward, strategic construal will be important as the group of cognitive processes activated by the participants in the survey to infer the cognitive motivation behind phrasal verbs. Each participant has a different background, which determines their knowledge of the world, knowledge of the language, and cognitive abilities. This, in turn, will influence the cognitive strategies they will use to arrive at the cognitive motivation behind phrasal verbs, which lies at the core of this thesis.

2.3 Conceptual blending

Besold and Plaza (2015) provide a definition of conceptual blending based on Fauconnier and Turner's research, describing it as:

a cognitive process which allows for the combination of certain elements (and their relations) from originally distinct conceptual spaces into a new unified space

combining these previously separate elements and allowing the performance of reasoning and inference over the combination. (p. 1)

In other words, a speaker of a language can combine two different lexical units into a new whole that has a different meaning than the sum of its parts. This results in polysemy, as conceptual blending adds new meaning to already existing combinations of units. For instance, the PV construction *put down* can be interpreted literally in a sentence such as *Put down the jar of cookies*. Here the meaning is a combination of *put* and *down*: putting an object in a place that is lower (more down) than its current position. The same PV construction can also be used figuratively to mean a number of things: criticize/insult somebody, use force to stop or eliminate something or somebody, euthanize an animal, pay for something, write something.

Fauconnier and Turner (2003, pp. 9-13) argue that blending can occur in a gradient, allowing for a corresponding gradient of polysemy. They demonstrate this on the example of the word *father*, which changes its meaning based on its use and context. In a very literal, everyday use of the term, it states a relationship between a male parent and a child. The meaning can be broadened, which becomes apparent when considering the following sentences:

Zeus is the father of Athena.

The Pope is the father of all Catholics.

George Washington is the father of our country.

Each successive example further distances itself from the original meaning while still retaining a lot of its original implications. Athena is Zeus' daughter because, in the myth, she came into existence from his head. In this case, the regular rules of procreation are not applied as the actors are gods. The Pope has a father-like position among the Catholics, implying leadership and authority and disregarding many other aspects of fatherhood, such as progeneration. In the last example, George Washington's role in the creation (birth) of the country of the United States of America grants him the title of father. Here the emphasis is on causality. Without George Washington, the US would not exist. All of these examples can be widely used and understood because fatherhood is an easily-understood and widespread concept and all the men in the examples can be fathers and have attributes generally connected with fatherhood (Fauconnier & Turner, 2003, pp. 9-13).

The authors also argue that language does not represent meaning directly, which causes it to prompt for blends that allow for the same word to be used with different meanings. Instead of directly representing meaning, language prompts for construction of meaning in a systemic fashion. Due to this, linguistic systems are not analogues of conceptual systems (Fauconnier & Turner, 2003, p. 18).

2.4. Decoding images

Images are often used as a form of communication and can transfer a great deal of information. They hold plenty of variety, with each image existing on a spectrum between fairly straightforward and a complex web that requires both real-world knowledge and familiarity with the code that is used to decipher its non-obvious meaning. However, even the most mundane and conventional image, consisting perhaps of stick figures and arrows, is coded. It doesn't take much imagination, knowledge, and understanding of the code to decipher that the stick figure represents a creature, such as a human or animal, and the arrow represents an action. On the opposite side of the spectrum one can find very abstract images (a geometric shape, such as a circle or a square, instead of the stick figure) or very detailed and intricate images that might include multiple entities, foreground and background, colors, and many other elements, all of which convey meaning. This section will delve deeper into the issues of coding/decoding images and will deal with some issues that are likely to be important later in the thesis.

Most images presented in this thesis are fairly simple, due to their purpose as illustrations of particle verbs in a questionnaire. Because they represent verbs, they can be classified as narrative representations, meaning that they use very similar mechanisms to convey or realize their meaning (Kress & van Leeuwen, 2006, p. 46). Each of them can therefore be broken down to its constituent parts that make up the image of the narrative; the next part of this thesis will provide a brief overview of these basic elements and their underlying meanings.

Each narrative process can be distinguished by the number and kind of participants involved, as well as the type of *vector* (representation of action in a drawing) (Kress & van Leeuwen, 2006, p. 59, p. 63). These processes can be categorized as follows: action, reactional, and speech and mental.

Action processes have these important components: an *actor*, a *goal*, and a *vector*. An actor is the participant from which the vector emanates and is usually the most salient

participant (Kress & van Leeuwen, 2006, p. 63). In other words, it is the one who performs the action. A goal is the participant at whom the vector is directed (Kress & van Leeuwen, 2006, p. 64). Actors and goals are usually nouns or other structures that act in the same way as nouns and are commonly depicted in schematized way as simple geometric shapes such as squares and circles. Vectors are meant to represent verbs, and do not have to always be visually represented. For example, one can draw a series of pictures and let the viewer imagine the actions that took place in between them. When they need to be schematically represented, arrows are the most common way to achieve that.

Not all of these components are necessary to depict an action process. An image consisting of an actor and a vector (without the goal) is called *non-transactional* as it is not aimed at anything or anyone. When an image represents an action with a goal and vector, but no actor, it is called an *event* because it is unknown who or what made it happen. A *transactional* image has all three components, with the vector flowing from the actor to the goal. It is also possible for a process to be *bidirectional*. In this case, two participants play both the role of actor and goal, either simultaneously or in succession. The participants in bidirectional actions are called *interactors* to distinguish them in their double role (Kress & van Leeuwen, 2006, pp. 63-66).

There is another distinct situation in which this model does not apply: *reactional* processes. Here the vector is constituted by the eyeline, the participant who does the looking is the *reactor*, and the participant that is being observed is the *phenomenon*. The phenomenon can be a process, such as an action process. The reactor has to have eyes and be able to observe and have facial expression, limiting the reactor to humans and human-like animals. If there is a visible phenomenon that the reactor is observing, than the process is transactional, otherwise it is non-transactional (if the phenomenon is not depicted) (Kress & van Leeuwen, 2006, pp. 67-68).

A subsection of reactional processes in which the observable phenomenon is replaced by an inner mental process are called *speech and mental* processes. In such cases, the phenomenon is usually represented by a speech balloon or a thought bubble, although other representations are also possible (Kress & van Leeuwen, 2006, p. 68).

Geometrical symbolism refers to the ways in which the choice of geometric shapes influences the meaning of the image. For example, an arrow can be modified in a number of ways: it can be curved, have a dotted line, have a smaller head, have the head be placed in the

middle, be thickened, multiple arrows can be used, and so forth. Each of these modifications changes the meaning of the vector. For instance, a thickened arrow implies greater intensity, while multiple arrows suggest increased frequency or multiplicity of action (Kress & van Leeuwen, 2006, pp. 71-72).

Secondary participants in an action are called *circumstances*, and they do not impact other participant by means of vectors. They can be left out without disrupting the basic composition of the scene, but they still provide additional information that might greatly change the meaning of the image. Circumstances can include objects such as tools used by the actor to carry out the action process, or elements of background that set the stage for the action (Kress & van Leeuwen, 2006, p. 72).

Gunther Kress argues that images and their visual meaning are too uncertain, indefinite, and too open to interpretation, and that language has to supplement it in order to solidify their meaning (Kress & van Leeuwen, 2006, p. 18). This is why an interpretation will be provided whenever an image is discussed in this thesis. This serves a double purpose of providing a reading of the image as a basis of its analysis and focusing attention to the parts of the picture that are of interest for the discussion that might otherwise be overlooked or unnoticed. It should be noted, though, that visual and verbal structures do not constitute two ways of representing the same thing. For the sake of brevity, this thesis will not discuss every detail, instead focusing on the elements that are deemed most important.

Based on all of this theory, some important presuppositions can be made that will impact the analysis of images further in the thesis: arrows denote actions, thought and speech bubbles cannot be disregarded as they might be the only way to represent an idea, expressions on humans and human-like creatures convey information about their internal state, and elements in a supporting role (circumstances) can be extremely important for the interpretation of the picture. All of this might seem obvious and self-explanatory, but was deemed as necessary to be stated as a part of the theoretical background that underlies this thesis.

Another important part of picture analysis is pictorial or visual metaphor, which has been studied extensively, but not as much as verbal metaphor (Forceville & Urios-Aparisi, 2011, p. 19). Metaphor in general is defined as when “one or more features (properties, predicates) are projected from the secondary subject upon the primary subject.” (Forceville, 1996, p. 35)

Theory regarding visual metaphor can be applied to many fields, including advertising, entertainment (film, illustrations, visual novels, and so forth), and education. Textbooks illustrations should be used to their maximum effect by being designed to serve an organizational, interpretational, or transformational purpose instead of being purely decorative or representational (Carney & Levin, 2002, pp 5-23). This becomes even more important as more varied and different media are used in the classroom.

3. Study

Data

The data used in this thesis is part of the data collected by Geld and Al-Bulushi and obtained from 46 participants: 22 participants had Croatian as their first language, and 24 had Arabic. All the participants had similar educational backgrounds, age and English proficiency (which was estimated to be high as the participants were drawn from graduate-level English majors).

Each participant was given a questionnaire containing 24 PV constructions (along with an explanation of each verb's meaning) and was instructed to draw the PV construction's meaning, making sure to explain what in the phrase produces each particular meaning (see Appendix A). For the purpose of this thesis only the drawings were analyzed.

Each participant was assigned a number, with Croatian participants being numbered 1-22, and Omani participants being numbered 23-46. Each PV construction was also assigned a number, following the order of appearance in the questionnaire.

The PV constructions consisted of six lexical component *break*, *cut*, *go*, *pull*, *put*, and *take* and four topological components *in*, *out*, *up*, and *down*. The questionnaire did not present them in any particular order. As proposed by Geld (2018, p. 61, 65), the lexical components *go*, *put*, and *take* are schematic, while *break*, *cut*, and *pull* are more specific. The following table shows all the combinations of lexical components and topological components:

	In	Out	Up	Down
Go	Go In	Go Out	Go Up	Go Down
Put	Put In	Put Out	Put Up	Put Down
Take	Take In	Take Out	Take Up	Take Down
Break	Break In	Break Out	Break Up	Break Down
Cut	Cut In	Cut Out	Cut Up	Cut Down
Pull	Pull In	Pull Out	Pull Up	Pull Down

Table 1

The questionnaire yielded a total of 1,104 images (46 participants times 24 phrasal verbs). The following section deals with the ways these drawings were categorized.

Categories

Each image provided by the survey was placed into one of six categories. The first four categories' names and descriptions were taken from a similar research conducted by Geld and Stanojević, but will be explained here (Geld & Stanojević, 2018, pp. 109-112). An additional category was introduced to code the images that could not be used in the research because they were left blank or had some sort of issue with them.

1. Visual paraphrase

Drawings in this category depict the metaphorical meaning of the phrasal verb provided in the questionnaire. For example, a picture of a container being filled for the verb *take up* (see Figure 1):

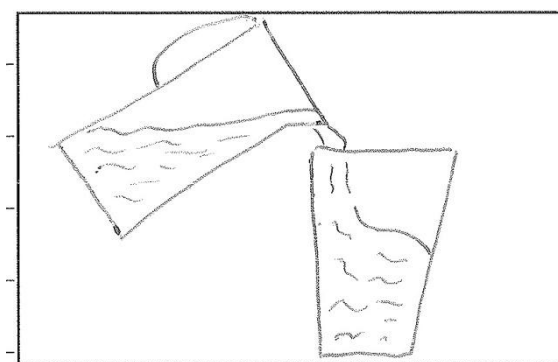


Figure 1: *Take up* - 'fill an amount of space or time'

Take up is described to mean 'fill an amount of space or time', which is represented here. Note that the lexical (take) and topological (up) components are not visible.

2. Literal compositionality

Literal compositionality refers to drawings that depict the literal meaning of the lexical component, the topological component, or both. For the purpose of this research, category 2 (literal compositionality) has been split into three subcategories, each of which deals with one of the three options. Drawings in Figures 2, 3, and 4 illustrate the three subcategories, using the phrasal verb *cut down* ('kill somebody').

2.1 (Lexical component)

This subcategory deals with drawings that depict only the lexical component's literal meaning, in this case *cut*. Cutting is represented with scissors, a tool customarily used for cutting.

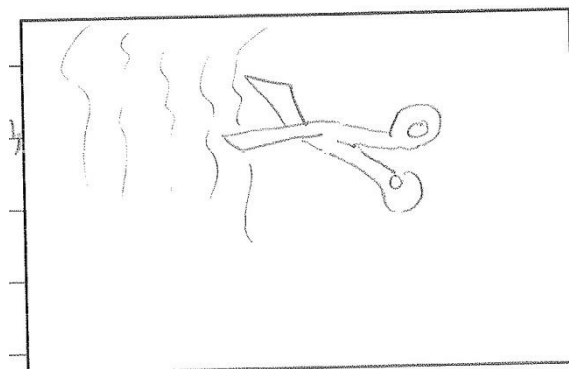


Figure 2: *Cut down* - 'fill an amount of space or time'

2.2 (Topological component)

In this subcategory, the drawing focuses only on the verb's topological component. In the Figure 3, the topological component is *down*. The stick figure (representing a person) is seen first standing up, but then goes prone. This movement is indicated with a downwards arrow. The verb's metaphorical meaning is not represented, as nothing indicates that the person is dead/was killed (for example, no blood or injuries, crosses for eyes, or a R.I.P. inscription).

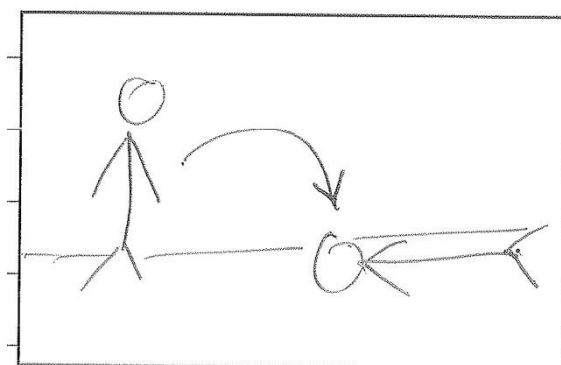


Figure 3: *Cut down* - 'fill an amount of space or time'

2.3 (Lexical component + topological component)

Drawings that contain both components, but not the phrasal verb's metaphorical meaning belong into this category. With the example of *cut down*, this can be depicted by an object's lower part being cut off or cutting in a downward direction. Figure 4 exemplifies the latter.

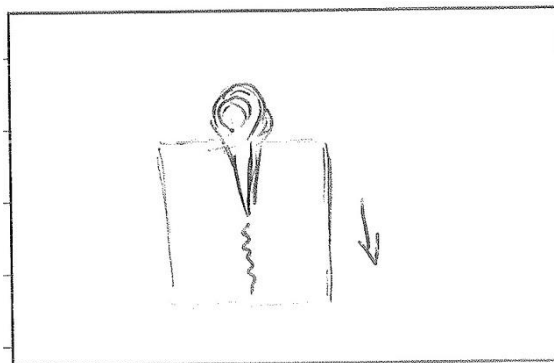


Figure 4: *Cut down* - 'fill an amount of space or time'

3. Partial conceptual integration

The drawings belonging in this category depict the PV construction's metaphorical meaning plus the verb's lexical or topological component. Such drawings provide evidence of the participant's understanding of the motivation behind the PV construction, as they are capable of connecting the construction's constituent parts to its meaning. These pictures are often more detailed than the previous categories and their interpretations are consequently longer. The example in Figure 5 illustrates the verb *take in* (understand or absorb something):

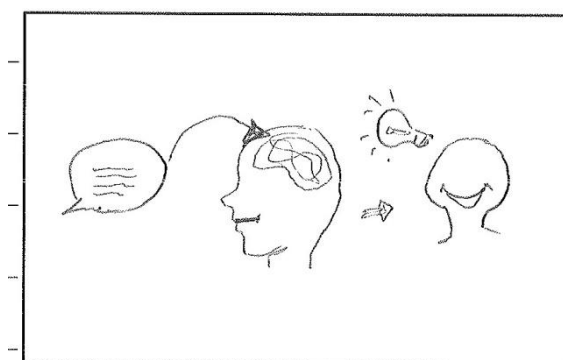


Figure 5: *Take in* - 'understand or absorb something'

The drawing represents a speech bubble, an arrow that connects the bubble with the brain, and a light bulb next to a head with a satisfied smile. The metaphorical meaning is represented, as the new information is absorbed by the brain and understood by the receiver of the information. The phrasal verb's topological component is also present through the arrow that points from the speech bubble to the brain. Only the lexical component, *take*, is not visible.

It is immediately clear that the picture contains visual metaphors: the speech bubble denotes information, the brain is the part of the body that is used for processing data, and the light bulb is a symbol for having an idea. When laid out in a sequence, they stand to mean the following: information is absorbed in the brain, which incorporates it with previous knowledge, resulting in a new idea.

4. Full Conceptual Integration

Full conceptual integration includes drawings that contain the PV construction's metaphorical meaning as well as a representation of both its lexical and topological components. Our criterion was that the two need to be connected in a single whole and not just be unrelated images, making these drawings more than the sum of their individual parts. Figure 6 represents an example of this category on the verb *break down* ('stop working'):

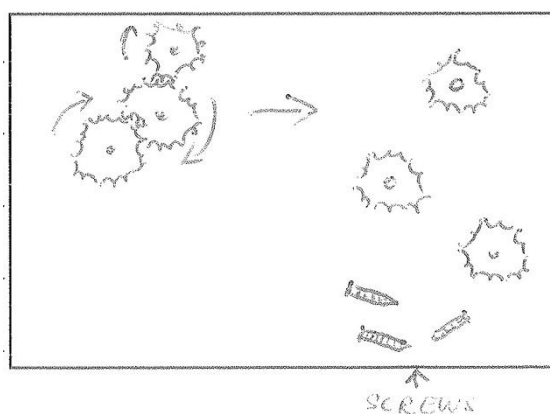


Figure 6: Break down - 'stop working'

The drawing is divided into two parts. The first, on the left, is of a working machine whose gears are turning. The machine then breaks as screws holding the gears fall down from the

machine, causing the gears to stop turning. Therefore, all the necessary components are depicted.

5. Miscellaneous

This category includes those drawings that do not fit into any other category, which can happen for a variety of reasons. Sometimes a participant misconstrues the PV construction's meaning (despite instructions) or used only words instead of pictures. Other times the drawings are so unclear that it is almost impossible to make out what they were meant to represent, or the drawing is impossible to interpret. Therefore, the drawings placed into this category are far less useful than the previous four categories, but can still be used as an indicator of verbs that were problematic to our participants. Here are a few examples:

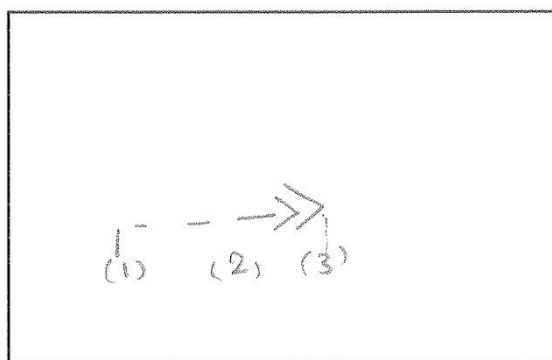


Figure 7: Break out - 'to escape'

In this example only an arrow is depicted, supplemented by numbers 1, 2, and 3. This is extremely schematic, to the point that it can refer to any action.

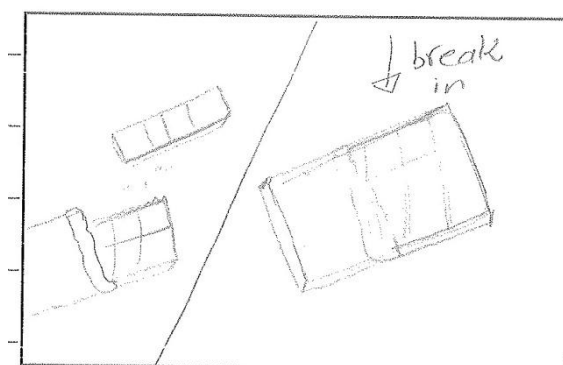


Figure 8: Break in - 'wear something until it is comfortable'

This example shows a chocolate bar with a piece broken off. The piece is then added back to the whole. If the order of images was reversed, one could argue for a representation of the lexical component and the placement of this image into category 2 (literal compositionality), but it is not.

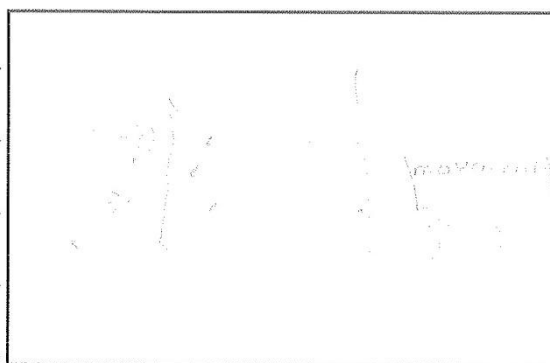


Figure 9: *Put in* - 'interrupt'

This image is too unclear to determine what is drawn, probably due to low scan quality.

Categories in numbers

As previously stated, the participants produced 1,104 drawings. However, not all of these drawings were assigned to the first four categories, limiting their usefulness. In total, 536 of the drawings were non-useful (category 5), which makes up for 48.55% of all drawings.

This number is presumed to be so high because of several reasons. Firstly, our analysis was based on the data scanned from the original questionnaires, and the quality of the scanned pictures was sometimes less than satisfactory. In addition to that there was a considerable number of pictures that were difficult to interpret or so faint that almost nothing could be discerned. Secondly, some phrasal verbs are difficult to represent visually, and some participants' attempts have fallen short. Thirdly, it was sometimes almost impossible to discern what was actually drawn in the picture – our interpretations would have to include leaps in logic, or rely too heavily on text in order to be classified.

The remaining 568 drawings were filed under categories 1 through 4. Category 1 (visual paraphrase) accounted for 226 images. Category 2 (literal compositionality) totaled 155 drawings; 60 in subcategory 2A (lexical component only), 43 in subcategory 2B (topological component only), and 52 in subcategory 2AB (both lexical and topological

components). 178 drawings were assigned to Category 3 (partial conceptual integration), while Category 4 (full conceptual integration) numbered only 9 entries, less than 1%. The following chart illustrates the distribution by category:

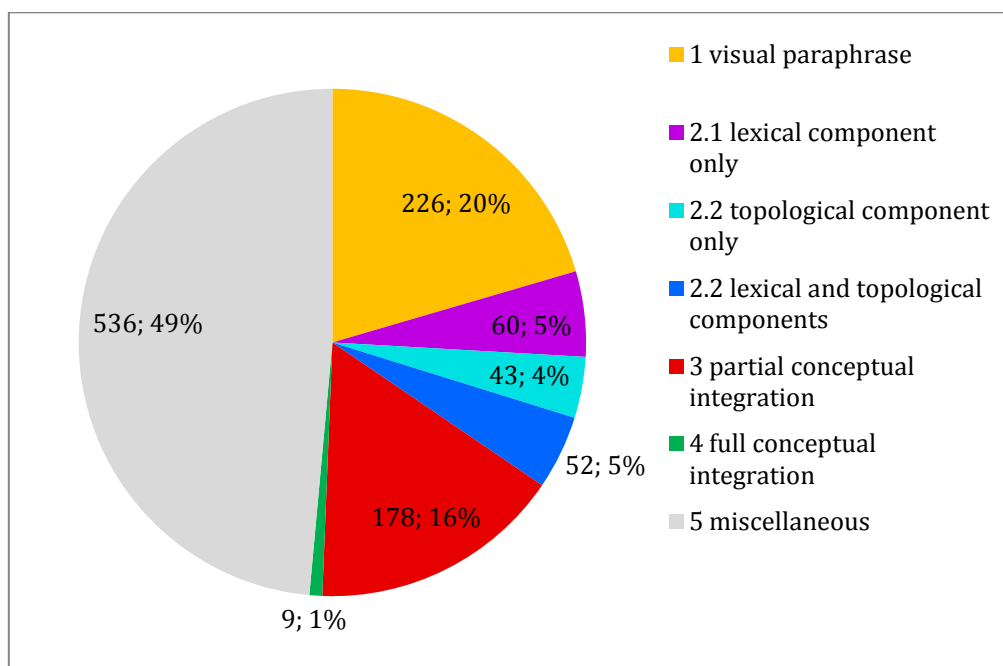


Chart 1: Distribution by category

Examples

Some participants in the survey apply the same strategies on each of their drawings, often resulting in all or most of their replies being filed under the same category. The following section will discuss two such examples while trying to uncover the underlying cognitive mechanism that leads to this strategy.

Participant #1, for instance, drew the figurative meaning of the PV construction while mostly ignoring the individual lexical and topological components that make up the construction. Most of his/her drawings ended up in category 1: Visual Paraphrase.

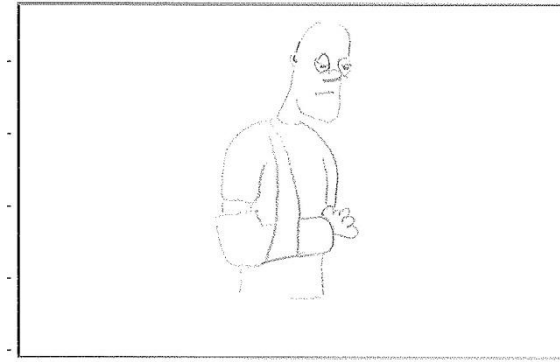


Figure 10: *Put out* – ‘injure back, shoulder, hip’

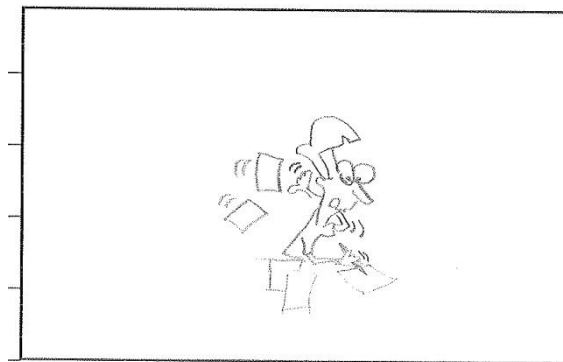


Figure 11: *Take down* - 'write something'

The first drawing simply represents a man with an injured arm, held in a sling. There is no indication of which part of the arm is injured. The explanation provided by the survey suggests that a joint is injured, as opposed to a broken bone, and does not mention arms. The lexical component *put* is not indicated in any way, but, as a more schematic verb, it is generally expected to be less likely the focus of the participants' attention. This means that the brunt of the meaning would often lie on the topological component *out*. However, in this particular case the component is also completely absent.

The second drawing shows a man frantically writing on a piece of paper, tongue stuck out in fervent concentration. The participant again focuses on the metaphorical meaning of the PV construction, completely neglecting the components constructing the composite whole. The same strategy is applied to the participant's other drawings.

Participant #37 has a strategy that consists of drawing three separate images: one explaining how the lexical component contributes to the meaning of the overall PV construction, one explaining the same for the topological component, and the last one combining them into the PV construction itself. This strategy, however, does not prove to be very consistent and many drawings were difficult to interpret. The components simply do not add up logically. Therefore, a lot of the replies obtained from this participant had to be filed under the Miscellaneous category.

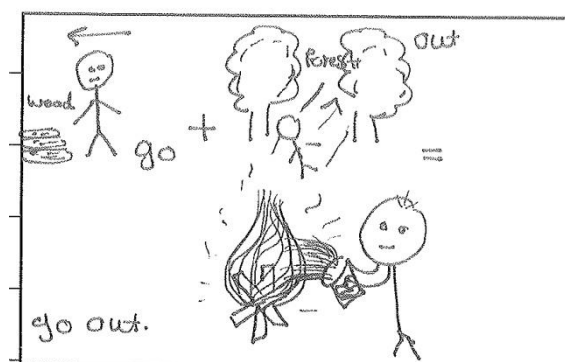


Figure 12: *Go out* - 'stop burning'

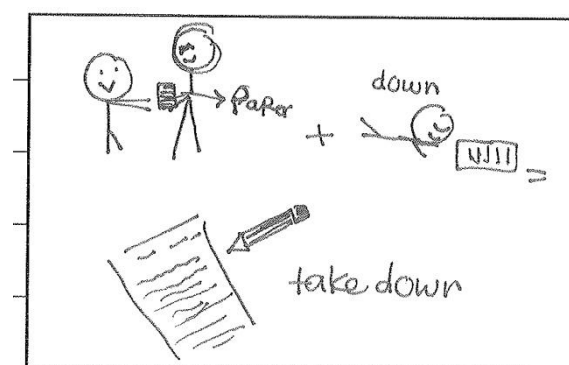


Figure 13: *Take down* - 'write something'

In the first example (Figure 12), the participant simply takes the components that make up the PV construction (*go* and *out*) and adds them up, portraying the end result as if it is the logical result of these components. Although the third picture in example 13 accurately represents the PV construction's meaning (stopping burning), it fails to take into account how *go* and *out* contribute toward that meaning.

The second example (Figure 13) follows the same logic: one drawing depicting a person *taking* paper, one showing the same person lying *down*, then the third showing a piece of paper next to a pencil and a caption '*take down*'. The result is the same as the first example (Figure 12): only the third drawing actually matters because one does not need to take a piece of paper from someone and lie down in order to write something. As this pattern reoccurs with most of this participant's drawings, it can be concluded that the participant understands the meaning of the PV constructions, but either fails to grasp the motivation behind the constructions or cannot adequately depict their ideas through a visual medium.

The following section will deal with drawings that were deemed interesting and significant enough to warrant individual analysis. Two examples will be presented: one dealing with the use of text in drawings, and one with incorporation of niche and specific cultural knowledge into drawings.

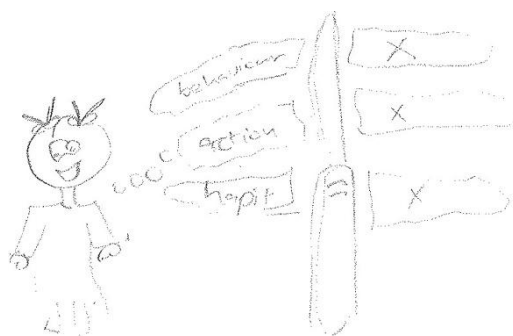


Figure 14: *Cut out* - 'stop doing something'

In this example (Figure 14), the phrasal verb *cut out* (stop doing something) was represented by a complex image. Horizontal bars inscribed with the words *behavior*, *action*, and *habit* are cut in half with a knife, with the right side of the bars being marked with an X. This X represents the cancellation of behaviors, actions, and habits, thus denoting the PV construction's metaphorical meaning. This image falls under Category 3 (partial conceptual integration) because the topological component is not represented.

The use of text in this drawing is justified for several reasons. Firstly, it is incorporated in the drawing and does not eclipse the visual elements. Secondly, the text is used instead of drawing abstract concepts (behavior, action, and habit), which would be very hard to represent visually. Thirdly, the drawing benefits from having the text; the absence of text or

use of purely visual elements would have made it more difficult to understand, but still possible.



Figure 15: *Put up* - 'resist strongly or fight hard'

The drawing in Figure 15 is a very interesting example that requires specific cultural knowledge to be interpreted. The participant drew a man wearing a hat and standing on a pedestal. On the surface, this has little to do with the phrasal verb's literal or metaphorical meaning, but the text next to the picture provides a crucial clue: the drawn man is identified as Stjepan Filipović. He was a Yugoslav communist who became a symbol of resistance against Fascism in the Second World War.

This revelation brings out several layers of meaning the participant has incorporated into the drawing. The PV construction's metaphorical meaning is contained in Stjepan Filipović's identity as an antifascist resistance hero. A viewer of the picture can also conclude that the drawing is meant to represent a statue of Stjepan Filipović instead of the man himself because of the pedestal. Furthermore, there are several statues representing him in real life, and in all the statues he is depicted assuming the same pose.

The PV construction's constituent parts are also represented, albeit subtly. *Put up* can be connected to the pose, because his hands are held up. Additionally, if one chooses to interpret the drawing as representing a statue, they can argue that statues are *put up*. *Putting up* a statue of a resistance leader can be seen as an act of resistance in itself. This is a bit of a stretch, as nothing indicates the statue being erected (such as arrows pointing upwards, or ropes pulling it up) and there is no solid evidence that it is in fact a statue (the pose is possibly

a reference to the most common depiction of Stjepan Filipović and there are no indications that he is made of a material typical of statues, such as cracks for stone or glinting for metal).

Differences between Omani and Croatian participants

The survey contained a section where participants can fill in the information regarding their age, education, and proficiency in English. There are a few differences that might have had an impact on the results.

Croatian participants have an average 15.8 years of learning English, with the minimum being 13 years. They are aged 22 to 25, and are all college students on their 5th year of study (with one exception). 19 out of 22 Croatian participants (86%) know at least one other foreign language, and 12 out of 22 (55%) know at least two other foreign languages. Learning foreign languages is seen as a necessity and an integral part of education in Croatia.

Omani participants were less keen on filling out this part of the survey, meaning that this data is less accurate because it describes a smaller sample of a larger group. The Omani participants have studied English for an average of 12.4 years, with the minimum being 2 years. It should be noted that only three participants listed have spent less than a decade learning English, all of them Omani. Omani participants are all aged 20 or 21, and were third year college students. Only four participants (17%) speak a foreign language other than English, and not a single participant listed being proficient in more than two foreign languages.

Due to differences in age, years spent learning English, and the number of languages spoken, it can be assumed that Croats might possess a slightly higher level of language competence. On average, Croatian participants were a few years older, started learning English a bit earlier in their lives, and know at least one more language, which gives them an advantage over their Omani peers. Consequently, they are more likely to have developed more complex and subtler language learning strategies, including those related to meaning construal, and therefore they might be more likely to find meaningful connections between the phrasal verbs' constituent parts and their metaphorical meanings.

When it comes to differences in drawings, we have seen some noticeable trends. All nine pictures filed under Category 4 (full conceptual integration) were drawn by Croatian participants. There might be several reasons for this result. One reason could be the fact that the author of this paper is Croatian and therefore might experience difficulties interpreting

Omani participants' drawings due to cultural differences. Another reason is that many Omani drawings were undecipherable due to the subpar quality of the scans, and were filed under Category 5 (miscellaneous). The third reason might be related to the previously mentioned language competence, primarily development of complex meaning construction strategies.

4. Conclusion

Let us return to the research questions posed in the introduction. The first question was concerned with the frequency of categories used by proficient speakers of English and the second with differences between Croatian and Omani speakers when it comes to the visual representation of PV constructions. Firstly, there is no single category that overshadows the rest. The first three categories, (1) visual paraphrase, (2) literal compositionality, and (3) partial conceptual integration, comprise around 50% of all the drawings, and having 20.47%, 14.04%, and 16.12%, respectively. This means that proficient speakers use a variety of strategies to visually represent PV constructions. Category 4, full conceptual integration, has proven to be elusive with only 0.82% drawings falling under it. Due to such a small number of pictures meeting the requirements for the most complex category, it can be concluded that not a single participant had a consistent strategy of visualizing PV constructions as a blend of their literal and figurative meanings. Secondly, the large number of non-useful drawings leads to the conclusion that even highly proficient learners cannot always visually express complex linguistic and cognitive constructions. The reasoning behind this can be divided into two arguments. First, the speakers fail to grasp the motivation behind the PV constructions and make a connection between their literal and metaphorical meanings. This argument can be true for some verbs (*pull up* – ‘stop while driving, especially for a short period of time’), but is not a likely explanation for others (*go down* – ‘be sent to prison’), meaning it is dependent on the particular PV construction in question. Second, drawing is not everyone’s forte and the problem might have been in the visual medium that was the required form of expression. Even though some speakers might be able to express their ideas through language, they stumble when it comes to translating their thoughts into pictures. To summarize, the somewhat even distribution of categories indicates variety in the use of strategies when it comes to the visual representation of PV constructions, but particular verbs and the speakers’ possible inexperience with visual expression are presumed to have stifled more favorable results.

When it comes to the comparison between Croatian and Omani participants, there are more similarities than differences. As expected, there have been some traces of cultural influences (such as the statue of Stjepan Filipović for Croats, or a woman dressed in traditional Arabic clothing in a few Omani drawings). Other, less evident differences, are likely to be related to a number of other possible factors, such as age and language proficiency differences, as well as years of learning English and knowledge of other languages.

To finalize this thesis, let us briefly address the question of applying our findings in teaching and textbook design. When it comes to teaching PV constructions, textbooks would benefit from using pictures that would fall under the fourth category (full conceptual integration), as learners are more likely to understand and learn a linguistic unit if they are able to understand the cognitive motivation behind it. One or more images that illustrate a PV construction's multiple meanings is likely to have a positive effect on both the learner's understanding and retention, while also transcending language barriers and being an economic use of space (an image is likely to take up less space than a textual explanation). It should also be noted that images are more salient than text, meaning that they will be seen first and remembered more easily. To compound these points, PV constructions are rarely intuitive as their metaphorical meanings can rarely be discerned without prior knowledge and they do not translate well between languages. Therefore, educators should be using every tool and strategy at their disposal to advance the learning process, whether this involves better understanding of the cognitive processes and strategies that underlie learning or finding the right way to present new information to learners.

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Appendix A: Questionnaire

Task

- a) You have a list of 24 phrasal verbs (24 meanings). Each verb is followed by a short dictionary definition of its meaning.
- b) Please go through the verbs one by one and try to do the following:

Explain the meaning of the phrase in your own words. Please, **do not** just rephrase the definition from the dictionary, but try **to explain the meaning by making sense of the phrasal verb construction**. If you can, please “draw the meanings” as well. 😊 Use the boxes on the right.

Make sure to explain what it is in the phrase that produces this particular meaning.

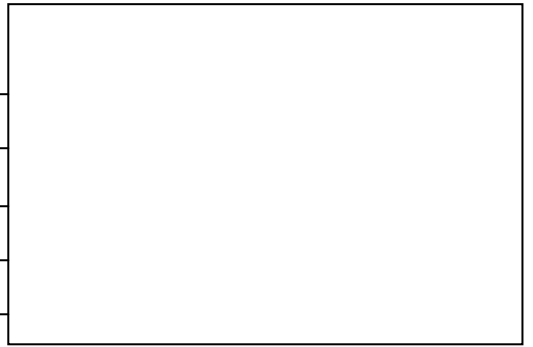
1) **cut out** – stop doing something



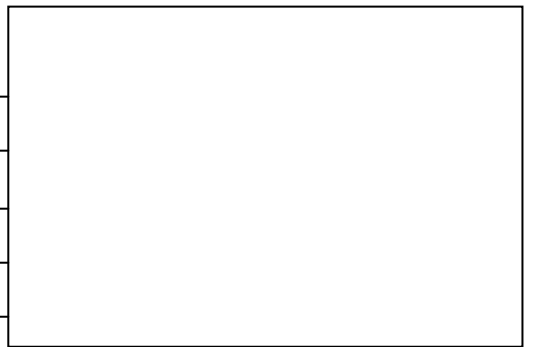
2) **put up** – resist strongly or fight hard



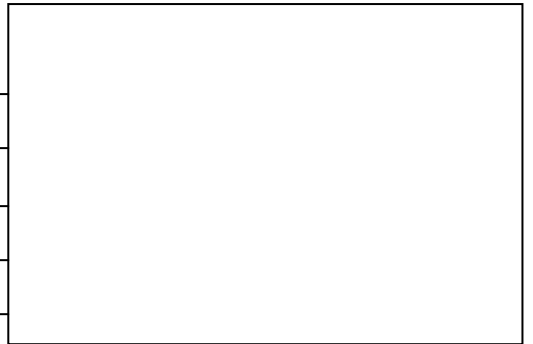
3) **go down** – be sent to prison



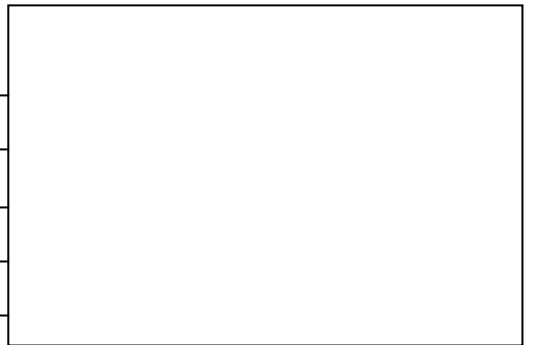
4) **pull in** – move to the side of the road to stop



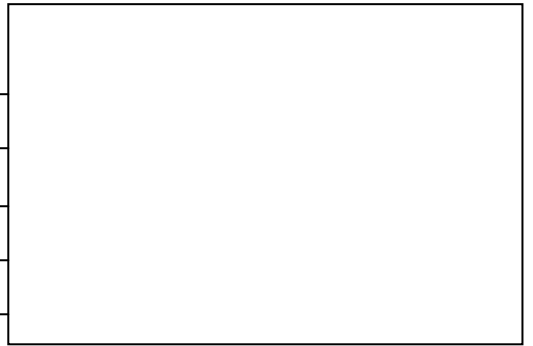
5) **cut down** – kill somebody



6) **go in** – become hidden



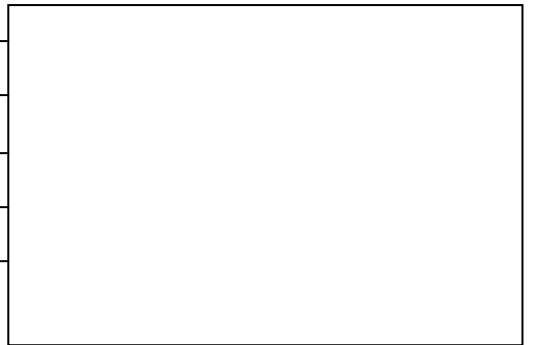
7) **put out** – injure your back, shoulder, hip, etc.



8) **take in** – understand or absorb something



9) **pull up** – stop while driving, especially for a short period of time



10) **break down** – stop working



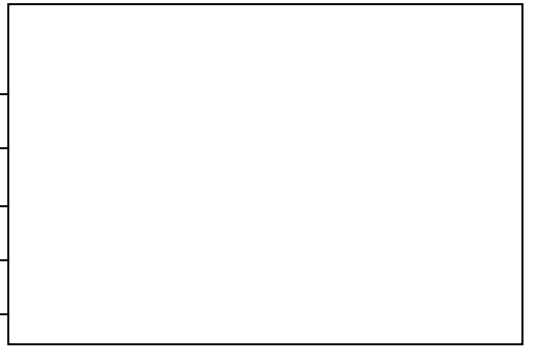
11) **put in** – interrupt

12) **take up** – fill an amount of space or time

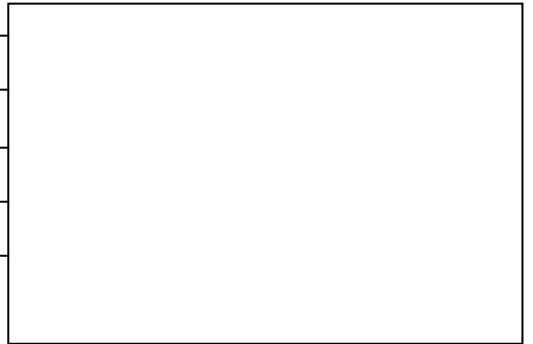
13) **pull down** – destroy a building

14) **break in** – wear something until it is comfortable

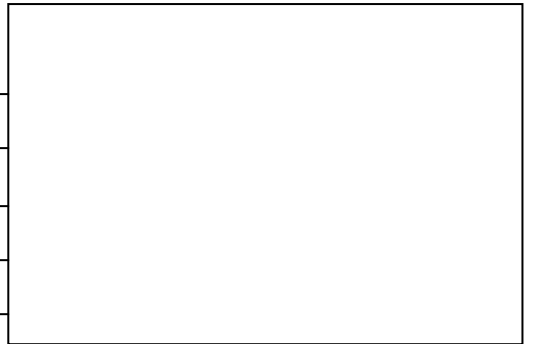
15) **pull out** – stop being involved in something



16) **cut up** – suddenly drive in front of another vehicle in a dangerous way



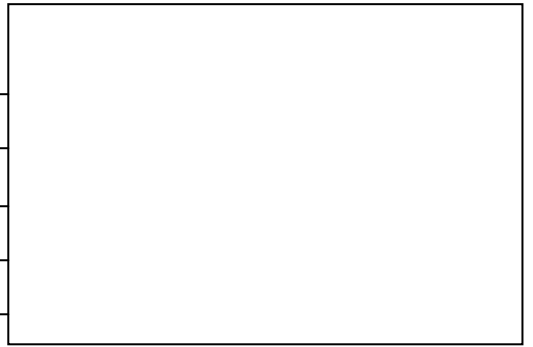
17) **put down** – criticize somebody and make them feel stupid



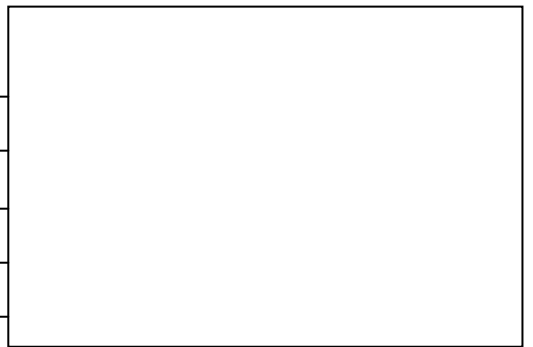
18) **break up** – end a relationship



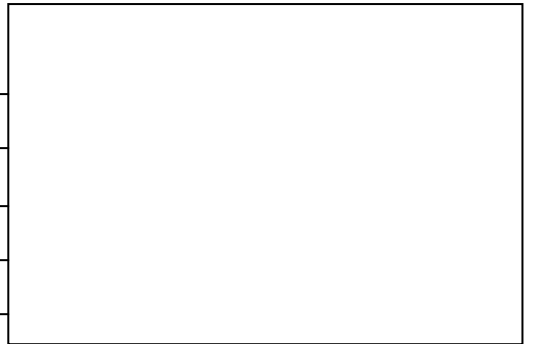
19) **go out** – stop burning



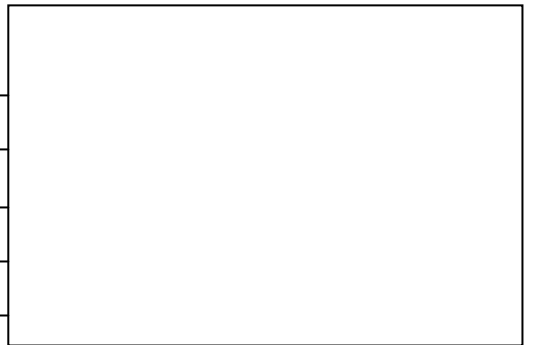
20) **take down** – write something



21) **go up** – be destroyed by fire or explosion



22) **break out** – to escape



23) **cut in** – interrupt somebody's conversation

24) **take out** – go out socially with somebody

Age:

First language:

Year of study (university):

Number of years of learning English:

Other languages you speak (please list):